

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

### Brenco Inc.

#### Virginia's A.L. Philpott Manufacturing Extension Partnership

#### Set-up Reduction Techniques Extends Opportunity for Increased Sales at Brenco, Inc.

##### Client Profile:

Brenco, Inc., is a leading producer of tapered roller bearings for the railroad industry located in Petersburg, Virginia, and a division of Amsted Industries. Brenco's campus also includes a rolled ring forging plant and a seal manufacturing plant. Though founded in 1949 to manufacture bronze journal bearings for railroad freight cars, a product it no longer makes, Brenco's present day product line maintains a 60 percent market share of bearings for new railcars built in the U.S. Brenco currently employs 450 workers at their Petersburg plant.

##### Situation:

Committed to continuous improvement, Brenco experienced greater overall productivity after beginning a Lean initiative in 2002. Paul Hubbard, Brenco's Director of Continuous Improvement/Manufacturing Engineering, saw that the next step would be to reduce the set-up time of a machine that fabricates cones (bearing inner races). Hubbard believed that taking a lean approach to the 2.5 man hours of set-up could remove some of the waste involved when the machine was changed over to produce cones of varying sizes. He contacted Virginia's Philpott Manufacturing Extension Partnership (VPMEP), a NIST MEP network affiliate, to assist with the training and implementation of set-up reduction.

##### Solution:

VPMEP Project Managers, Mark Oakes and Ken Martin, videotaped a changeover in order to identify opportunities for reducing the set-up time. Brenco established a cross-functional team that received classroom instruction provided by Oakes and Martin (which included a simulation) on techniques that facilitate faster changeovers. Following the training, the VPMEP project managers and the Brenco team analyzed the videotapes and applied set-up reduction techniques to identify and eliminate all non-value added actions while streamlining required activities.

##### Results:

- \* Increased sales by \$38,000.
- \* Reduced annual labor costs by \$7,000.
- \* Created staff awareness of waste.

##### Testimonial:

"Mark and Ken (VPMEP) came to Brenco and gave us all a fresh perspective on changeovers of our cone forging line. We saw many things in the changeover that were obviously wasteful once we viewed the videotape. These opportunities are otherwise difficult to see during changeover. There was a cross-functional team assigned to this training including operators, maintenance, and engineering. This team has been effective in implementing the changes recommended by VPMEP. The exercise was fun for the team, because everyone was able to poke fun at one another in a good natured way.

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We are still in the process of replacing several pieces of redesigned tooling that will ultimately save approximately 17 minutes on changeover. We will then videotape the process again to look for further opportunities with this team. Thanks to VPMEP for your help!"

Paul A. Hubbard, Director of Continuous Improvement / Manufacturing Engineering